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ABSTRACT

This paper looks at the state of education in knowledge management (KM). It reports findings from a study of knowledge management courses included in the curriculum of academic disciplines of business, computing, and information that was conducted at the Nanyang Technological University (Singapore). Based on a review of course descriptions selected from Web sites of universities in Australia, Canada, Singapore, the United Kingdom, and the United States, the paper describes levels of courses, curriculum areas and topics, and differences in emphasis in teaching KM courses in different departments and schools. A table presents data on the details of KM courses for each university, including the school/department, course title, level, and academic program. A second table lists topics in KM courses for several curriculum areas, including foundations, technology, process (codification), applications, and strategies. (MES)

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Perspectives on education for knowledge management

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Abstract:
This paper looks at the state of education in knowledge management (KM). It reports findings from a study of knowledge management courses included in the curriculum of academic disciplines of business, computing, and information. Based on a review of course descriptions selected from web sites of universities in Australia, Canada, Singapore, UK, and USA, the paper describes levels of courses, curriculum areas and topics, and differences in emphasis in teaching knowledge management courses in different departments and schools.

INTRODUCTION

Several papers have highlighted the need for preparing libraries and information centers and information studies education programs to quickly and appropriately respond to the changes being introduced by the emergence of knowledge-based economy, knowledge management discipline, and e-business. Reardon (1998) suggested that information and library science rightfully resides in the emerging field of knowledge management and that elements useful to knowledge management have been present in syllabi for some long time. Ruth, Theobald, and Frizzell (1999) have commented that knowledge management practices have been elaborated in books, articles, cases, and symposia for almost a decade, with particular acceleration during recent years. However, only a small number of universities offer KM courses today. They highlighted the need for introduction of more courses in the area of knowledge management and

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recommended modules including knowledge creation, history of KM theory, and knowledge coding, etc. Corrall (1999) noted that there has been a phenomenal growth in interest and activity in knowledge management, as seen in many new publications, conferences, IT products, and job advertisements. She pointed out that KM does not seem to have been had much impact on the higher education sector so far, but there is some evidence of involvement. Davenport and Cronin (2000) suggest that knowledge management is a complex and multidimensional concept that requires diverse insights. They alert information professionals that a partial understanding of KM by different domains may result in an overemphasis on different aspects of knowledge management. We feel that such an imbalanced approach may influence curriculum designing in information studies programs. We would, therefore, like to emphasize on the need for investigation of knowledge management education in different disciplines and the need to deploy appropriate strategies to introduce well-thought out courses on knowledge management in information studies programs.

This paper reports the results of a study on perspectives of knowledge management education in academic disciplines that are currently involved in teaching KM courses. The study was conducted at the Division of Information Studies of the Nanyang Technological University in Singapore during the Second Semester of the 2000-2001 Academic Year. The research aimed at investigating the differences in approaches to KM education by the various education providers focusing on the following questions:

1. Who are the main education providers (in which disciplines are the KM courses offered)?
2. At what level are the KM courses taught (undergraduate or graduate)?
3. What are the major contents of general KM courses?
4. What is the primary emphasis in courses that explicitly address the subject of knowledge management?
5. What are the differences in emphasis in KM courses in different academic disciplines?

Data on curriculum and other related details were collected from a sample of 37 knowledge management courses offered by universities located in five countries: Australia, Canada, Singapore, UK, and USA. These courses were selected from a list yielded by an extensive search on the Internet using the following criteria:

- Courses offered for academic credit at undergraduate or graduate level (short courses, seminars, practical training programs, and activities for professional development or continuing education were excluded).
- General courses designed to provide an overview of important topics related to knowledge management (specialized courses like competitive intelligence, organizational communications, etc. were excluded).
- Courses sponsored by universities and other similar institutions recognized for granting academic or professional qualifications (KM programs offered by consultants, management companies, or professional associations were excluded).

We collected information about coverage of KM topics in courses offered by different disciplines. Our objective was to determine current trends rather than compiling an inventory of current courses. Courses without sufficient description and detailed outline topics had to be dropped from analysis of contents.

In the first phase of our study, we restricted our analysis to course descriptions available on the web. We intend to collect additional information for validation and verification and more detailed analysis in the second phase of the project by conducting an online survey seeking information on course details from the faculty members who taught these courses.

CURRENT STATE OF KNOWLEDGE MANAGEMENT EDUCATION

Education Providers

KM courses are mainly offered at the graduate level. Out of the 37 KM courses included in our study, only seven are at undergraduate level, while 30 courses are at the graduate level, designed as part of a master's program. These KM courses are from the areas of business, computing, and information. These courses are part of the curriculum in the departments of information systems (either in computing or business schools) and the divisions of information studies (generally in schools of library and information science, with a couple of exceptions). The highest number of KM courses reviewed in this study is part of the master's degree in information systems or studies (MS, IS) - 40%. The second highest number of KM courses is for the master in business administration (MBA) - 35%. Figure 1 and 2 show the spread of KM courses by schools and academic programs. Specific details about courses are given in Table 1.

Figure 1: Schools Offering KM Courses

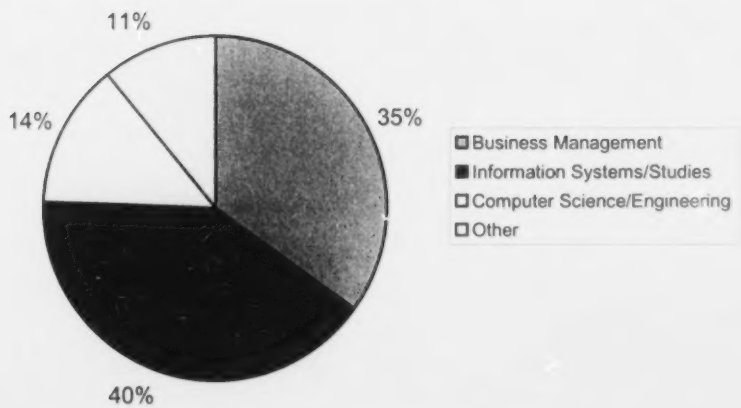

Figure 2: Spread of KM Courses by Academic Programs

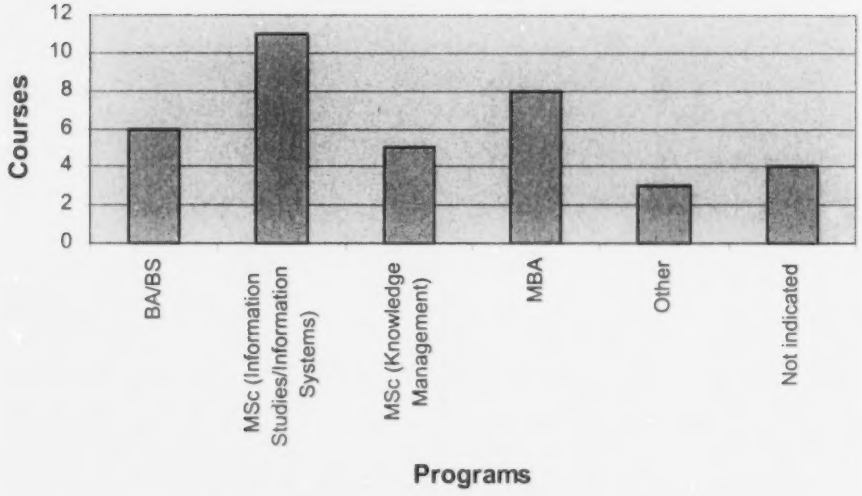

Table 1
Details of Knowledge Management Courses

UNIVERSITY	SCHOOL/ DEPARTMENT	COURSE TITLE	LEVEL	ACADEMIC PROGRAM
AUSTRALIA				
University of Melbourne	Department of Information Systems	Knowledge Management in Organizations	Undergraduate	BA/BSc
Monash University	School of Information Management and Systems	Knowledge Management	Graduate	Master of Information Management and Systems
Royal Melbourne Institute of Technology, Victoria	Department of Information Management and Library Studies	Knowledge Management	Graduate	Master of Information Management and Library Studies
University of Technology, Sydney	Department of Media, Communication and Information	Knowledge Management	Graduate	MA in Information (with specialty in KM)

CANADA				
University of Toronto	Faculty of Information Studies	Organizational Knowledge Management	Graduate	Master of Information Systems
University of British Columbia	School of Archival, Library & Information Studies	Knowledge Management	Graduate	MS (LIS)
Queens University, Kingston, Ontario	School of Business	Knowledge Management Systems	Undergraduate	BA/BSc
University of Alberta, Edmonton, Alberta	School of Communication	Knowledge Management and Communications Technology	Graduate	MA in Communicatio ns Technology
SINGAPORE				
Nanyang Technological University, Singapore	Division of Information Studies	Knowledge Management	Graduate	Master of Information Studies
UK				
The Open University	Business School	Managing Knowledge	Graduate	MBA
South Bank University	School of Information Systems and Mathematics	Knowledge Management Systems	Graduate	MSc Knowledge Management
University of Sc & Technology, Loughborough	Department of Information Science	Information and Knowledge Management	Undergraduate	BSc
University of Central England, Birmingham	School of Information Studies	Knowledge Organization and Management	Graduate	MSc Knowledge Management
Schefield Hallam University	Scheffield Business School	Knowledge Management	Graduate	MSc Knowledge Management
University of Northumbria, Newcastle	Business School	Knowledge Management	Graduate	MBA
University of Southhampton	Department of Electronics and Computer Science	Knowledge Technologies	-	-
Leeds Metropolitan University	School of Information Management	Information and Knowledge Management	Graduate	MSc E Commerce
Robert Garden University	Centre for Knowledge Management	Knowledge Management	Graduate	MSc Knowledge Management

USA				
University of Alabama	School of Library and Information Studies	Issues in Librarianship: Knowledge Management	Graduate	Master in Library & Information Science
North Carolina University	Department of Business Management	Knowledge Management	Graduate	MBA
University of Washington	School of Health and Community Medicine	Knowledge Management in Health Services	Undergraduate	-
University of Washington	School of Information	Knowledge Management Seminar	Graduate	MS
Temple University	School of Business Management	Knowledge Management in E Business	Graduate	MBA/MIS
Claremont University	Graduate School of Information Sc	-	Graduate	-
Dominion University	Graduate School of Library & Information Science	Knowledge Management	Graduate	MS Knowledge Management
University of California at Berkeley	School of Information Management & Systems	Management of Information Systems and Services	Graduate	MS (LIS)
University of Texas at Austin	McCombs School of Business	Information and Knowledge Management	Graduate	MIS
University of Maryland	Robert Smith College of Business	Globalization of Knowledge Management	Graduate	MBA
George Mason University	Graduate Business Institute	Leveraging Information Technology: Knowledge Management	Graduate	MBA
George Washington University	School of Engineering & Applied Science	Intelligent Systems & Knowledge Management	Graduate	-
University of Colorado	College of Education (LIS Program)	Knowledge Management	Graduate	MLIS
University of Minnesota	Carlson School of Management	Knowledge Management	Graduate	MBA
University of Southern California	Marshall School of Management	Knowledge Management	Undergraduate	BS
DePaul	Graduate School	Knowledge	Graduate	MBA

University	of Business	Management		
Kent State University	Kellstadt Graduate School of Business	Information Architecture and Knowledge Management	Graduate	MSc
New York University	Stern School of Business/ Dept of Information Systems	Knowledge Management and Decision Systems	Undergraduate	BS
Georgia Southern University	College of Business Administration	Knowledge Management	Undergraduate	BS

Course Contents

A review of the contents of the knowledge management courses offered by business, computing, and information schools indicated that the following topics are listed in most of the courses: concepts related to knowledge, tools to exploit the potential of knowledge, strategies employed by organizations to manage knowledge, and support systems needed to sustain the knowledge management initiatives. We grouped frequently listed topics into five main curriculum areas. These areas can be considered fundamental in general KM courses. Table 2 shows topics that are frequently listed under these fundamental areas. These topics were listed under different terms and names and were grouped under different headings in the course descriptions. We have rephrased the topics and rearranged them under the fundamental areas for convenience.

Table 2
Curriculum Areas and Topics in Knowledge Management Courses

CURRICULM AREA	TOPICS
1. Foundations	Definitions and complexity of knowledge Forms of knowledge (tacit, explicit) Sources of Knowledge (best practices, communities of practice) Knowledge workers Intellectual capital Knowledge-based organizations Knowledge management process Knowledge management enablers Knowledge sharing models
2. Technology	General overview of commonly used technologies Selection and design considerations for KM enabling technologies KM Architecture KM Tools and applications Collaboration (groupware tools) Business Intelligence (data analysis tools) Document Management Systems Intranets/Portals/Web sites
3. Process (Codification)	Knowledge audit Capturing and acquisition of knowledge Knowledge mapping

	Organization and categorization of knowledge resources Developing and maintaining knowledge repositories Search and retrieval, use, and re-use of knowledge
4. Applications	Case studies and success stories of KM application in consulting firms and IT companies Considerations for knowledge management applications in different sectors and industries Implementing a KM project in an organization
5. Strategies	Integrating knowledge into organizational work to gain leverage from organizational knowledge resources Steps for sustaining the KM work Institutionalization of KM activities Human resources and support (role and responsibilities of knowledge professionals) Measurement of knowledge assets

Differences in Perspectives

Emphasis in course contents varied from more technology oriented contents in computing departments to management oriented in library and information science and business management departments and schools. KM courses offered in business schools focused more on topics like intellectual capital, measurement, and business cases while information systems and studies departments focused more on knowledge repositories and developing and managing contents.

A review of topics listed under main modules in the course descriptions indicated a primary emphasis on pro-sharing culture, organizational restructuring, and change management in business schools. Information systems and studies departments tend to focus more on organization of knowledge resources emphasizing on topics like taxonomies, knowledge mapping, and knowledge policies. Topics listed in course descriptions in computing departments demonstrate an emphasis on tools, particularly the technology. Their course outlines include topics related to technology for delivering knowledge resources like search engines, intranets, portals; collaboration technologies like Lotus Notes and Microsoft Exchange; Documents Management Systems, and different types of data and information analysis tools for business intelligence like data mining, data warehousing, etc.

While all disciplines emphasize in their courses the need for understanding of principles of knowledge management, such as creation of conducive environment, and promotion of pro-sharing culture for successful knowledge management work, differences in perspectives about knowledge management seem to have influenced the curriculum design in different departments and schools. In business management schools, the KM curriculum appears to focus more on knowledge based organizations, emphasizing more on strategic planning and change management. On the other hand, contents of KM courses in information schools show a slant towards information organization and management, emphasizing on information needs, resource selection, and information search and retrieval. The contents of KM courses in computing schools show a clear emphasis on information system aspects, focusing more on implementing KM enabling technologies and data analysis tools.

CONCLUSIONS

Our analysis of state of the KM education was an initial foray into an important and expanding area of investigation. This exploratory study has demonstrated the need for inclusion of core topics related to knowledge management either in existing foundation courses or in the form of introducing a basic course on knowledge management. Information studies programs with ambitions of introducing a knowledge management specialty ought to add additional courses on knowledge organization, KM enabling technologies, and knowledge-based organizations, in addition to the introductory course on knowledge management covering basic topics of knowledge concepts, technologies, processes, and strategies.

Further research is required on a larger scale to gather data from more schools and departments and detailed analyses based on comprehensive course information rather than just the outlines on the web.

REFERENCES

Corrall, Sheila. (1999). Are We in the Knowledge Management Business? Available at: [http://www.ariadne.ac.uk/issue18/knowledge-mgt/]. Accessed on 29 May 2001.

Davenport, E. and Cronin, B. (2000). Knowledge Management: Semantic Drift or Conceptual Shift. *Journal of Education for Library and Information Science.* Volume 41, Number 4. 294-306 pages.

Ruth, S., Theobald, J., and Frizzell, V. (1999). A University-based Approach to the Diffusion of Knowledge Management Concepts and Practices. *SIGPR, New Orleans LA USA.* Available at: [http://icasit.org/finalkmpapaer.htm]. Accessed on 29 May 2001.

Reardon, Denis. (1998). Knowledge Management: the Discipline for Information and Library Science Professionals. *64th IFLA General Conference.* Available at: [http://www.ifla.org/IV/ifla64/017-123ehtm]. Accessed on 29 May 2001.